



US Army Corps  
of Engineer  
Huntington District

# Ohio River Navigation Charts

## Foster, Kentucky, to New Martinsville, West Virginia

January 2003

*The Bicentennial  
Commemoration of the  
Lewis and Clark  
Corps of Discovery  
2003-2006*



*The Beginning of the  
Great Expedition...*

### The Eastern Legacy

The Lewis and Clark Corps of Discovery was the first of the great explorations undertaken by the United States. The idea, the planning, and the journey began in the East.

*"Jefferson gave you the country. Lewis  
and Clark showed you the way."*

*Elliott Coues*

### From Trail Blazing to Walking on the Moon

When the English explorer, Alexander Mackenzie, published in 1801 an account of his explorations in the Northwest, the race to the unknown was on just as the race for space exploration took place in the 20<sup>th</sup> century.

There were fewer undiscovered secrets in the pursuit of a moon landing in 1969 than those hidden in the Far West when the two explorers –Meriwether Lewis and William Clark –and their party set out for the Pacific in 1803.

A great exploratory expedition is initiated long before the first footstep on the trail or the first oar dips into the water. Follow in the footsteps of Lewis and Clark as they prepared for their journey and explored the young America.

# NAVIGATION CHARTS OHIO RIVER HUNTINGTON DISTRICT

FOSTER, KENTUCKY TO NEW MARTINSVILLE, W. VA.

CORPS OF ENGINEERS, U. S. ARMY  
502 EIGHTH STREET  
HUNTINGTON, W. VA. 25701-2070

## BRIEF INDEX

















LEGEND, CHARACTERISTICS OF NAVIGATION LIGHTS AND DAYMARK DESCRIPTIONS -----	SHEET A
GENERAL NOTES -----	SHEET B
MAP INDEX TO NAVIGATION CHARTS -----	SHEET C
TABULAR INDEX TO NAVIGATION CHARTS -----	SHEET D
REGULATIONS -----	SHEET E
REGULATIONS -----	SHEET F
REGULATIONS -----	SHEET G
MARINE SAFETY INSPECTION ZONES -----	SHEET H
NAVIGATION CHARTS -----	NOS. 122 TO 186, INCL.
OHIO RIVER TRIBUTARY CHARTS -----	NOS. 142A & 142B, 147A TO 147E, 149A, 171A TO 171C, 174A TO 174C, & 177A
OHIO RIVER TERMINALS -----	SHEETS 1-35
OHIO RIVER SMALL BOAT HARBORS, RAMPS, LANDINGS, ETC. -----	SHEETS 36-55














**NOTE: INFORMATION SHOWN ON THIS CHART IS A GENERAL DEPICTION OF THE WATERWAY AND ADJACENT AREAS, ONLY; AND IS NOT IN ANYWISE TO BE CONSTRUED AS REPRESENTING PRECISE OR ACCURATE DIMENSIONS, PROTRAYALS, FEATURES, OR OTHER DATA. MAJOR CHANGES IN CHANNEL CONDITIONS WHICH OCCUR PRIOR TO THE NEXT ANNUAL REVISION WILL BE PUBLISHED IN "NOTICES TO NAVIGATION INTERESTS" AS THEY OCCUR. THE GENERAL LOCATIONS OF AIDS-TO-NAVIGATION ARE SHOWN AS THEY EXISTED ON THE LAST EDITING DATE OF THIS BOOK. THEY MAY SUBSEQUENTLY HAVE BEEN MOVED, DESTROYED OR DISCONTINUED. THEY SHOULD IN NO EVENT BE USED TO FIX THE POSITION OF A VESSEL.**

REVISED: JAN. 2003





## OHIO RIVER MILEAGE CHART

LEGEND

U. S. Navigation Lights	 or 
Daybeacons	 or 
Permanent type buoys:	
Can (black or green)	
Nun (red)	
Lighted buoys:	
Can (black or green)	
Nun (red)	
Sailing line	
Alternate sailing line	
Arrival point for lockage	
Land above project pool	
Water with less than a 9' depth at normal pool	
Water with 9' depth or more at normal pool	
Aerial crossing	
Tower	

Intake	
Diffuser Outlet Pipe	
Gage	
Docks:	
Recreation	
Commercial	
Freight terminal	
Paved Landing	
Boat launching ramp	
Federal mooring facility	
Fleeting harbor	
Restricted area, Do Not navigate in this area	
Submarine cable crossing	
Submarine pipeline crossing	

DAYMARK DESCRIPTIONS

		<i>TR</i>	Triangular shape red PASSING daymark with red reflective border.
		<i>CR</i>	Diamond shaped red CROSSING daymark with small diamond shaped red reflectors at each corner.
			Right Descending Bank
		<i>SG</i>	Square shaped green PASSING daymark with a green reflective border.
		<i>CG</i>	Diamond shaped green CROSSING daymark with small diamond shaped green reflectors at each corner.
		<i>(D)</i>	Oriented Downstream
		<i>(U)</i>	Oriented Upstream

Note:  
Daymark symbol shown in legend is displayed on charts only when a daymark is not accompanied with a U.S. navigation light. Daymark descriptions are given for all daymarks.

\*Navigators should be aware that barges are frequently moored at this location for loading and unloading purposes even though there is no major riverside construction.

CHARACTERISTICS OF NAVIGATION LIGHTS

Lights in the Second Coast Guard District show simple characteristics, allocated by color or other feature to the left and right descending banks, as tabulated below:

Left descending bank			
F.W.	- - - - -	-	Fixed White
F.R.	- - - - -	-	Fixed Red
FL(2)W5s	- 5 sec., 2 flashes -	-	Group Flashing White
FL(2)R5s	- 5 sec., 2 flashes -	-	Group Flashing Red
FL(2)W6s	- 6 sec., 2 flashes -	-	Group Flashing White
FL(2)R6s	- 6 sec., 2 flashes -	-	Group Flashing Red
IsoW	- - - - -	-	Equal Interval White
IsoR	- - - - -	-	Equal Interval Red
Q R	- - - - -	-	Quick Flashing Red
IQ R	- - - - -	-	Interrupted Quick Flashing Red.
2 F.R.	- - - - -	-	Two Lights showing Fixed Red (this abbreviation may indicate any number or color necessary).

Right descending bank			
F.W.	- - - - -	-	Fixed White
F.G.	- - - - -	-	Fixed Green
FL W4s	- 4 sec. - - - -	-	Flashing White
FL G4s	- 4 sec. - - - -	-	Flashing Green
IsoW	- 2 sec. - - - -	-	Equal Interval White
IsoG	- 2 sec. - - - -	-	Equal Interval Green
Q G	- - - - -	-	Quick Flashing Green
IQ G	- - - - -	-	Interrupted Quick Flashing Green
2 F.G.	- - - - -	-	Two Lights showing Fixed Green (this abbreviation may indicate any number or color necessary).

LEGEND,  
CHARACTERISTICS OF NAVIGATION LIGHTS  
AND DAYMARK DESCRIPTIONS  
NAVIGATION CHARTS  
OHIO RIVER  
HUNTINGTON DISTRICT



NAVIGATION CHARTS AND NOTICES

Navigation charts show the location and identification of commercial docks, fleeting harbors and many private and public pleasure craft facilities, but may not depict the full extent of the facilities. Also, extensive recreational development and other riverbank installations may exist which are not shown on navigation charts. Vessel operators are encouraged to operate in a manner to preclude damage and/or destruction of these facilities during periods of increased river levels.

Navigation charts for the Ohio and Kanawha Rivers withinn the limits of the Huntington District are available on our web site [www.lrh.usace.army.mil](http://www.lrh.usace.army.mil) for viewing and/or printing. Information on how to order spiral bound copies of navigation charts, as well as links to access navigation charts outside the Huntington District boundaries, are also available on our web site.

Notices to Navigation Interests, containing data on channel conditions and location of dredges, are issued as occasions demand. Huntington District's Notice to Navigation Interests are available on our web site [www.lrh.usace.army.mil](http://www.lrh.usace.army.mil) for viewing and printing. Interested parties, who send a request to:

Leader, Dredging Team  
U.S. Army Engineer District, Huntington  
502 8th Street  
Huntington W. Va. 25701-2070.

are placed on a mailing list to receive either electronic or printed copies of these notices.

Charts covering the section of the Ohio River, within the limits of the Engineer Districts, are as follows:

Louisville District: Charts 1-122  
Huntington District: Charts 122-186  
Pittsburgh District: Charts 187-224

MILE POINTS

Mile points are shown on the charts at one mile intervals, with figures designating mileage below the point, at the confluence of the Allegheny and Monongahela Rivers, Pittsburgh, Pa.

BUOYS

Buoys used to mark channels in the Mississippi River System conform to the standard lateral system of buoyage in the United States. All buoys are equipped with reflectors; buoys on the left descending side of the channel reflect red; buoys on the right descending side of the channel reflect green.

Buoys are set to mark project depths taking into consideration the prevailing river stage and obstructions. Buoy positions as shown on the chart are approximate.

GAGES

Data for gages are shown at gage locations or on Dam Elevation Views.

DIKES

Plus figures on dikes show height of dike, in feet, above normal pool level. Minus figures show depth, in feet on top of dike at normal pool level.

LOCKS AND DAMS

A plan view of each of the Locks and elevation view of the Locks and Dams is shown on the back of the chart preceding each of the structures. The plan view of the locks shows location of floating mooring bits, wall ladders, pull chains for recreational craft, and distances inside chambers and on the upper and lower guide walls. The elevation view shows the height of the highest fixed points on the various parts of the Locks and Dams, in feet, above the zero of the upper gage except as otherwise noted.

VERTICAL CLEARANCES

Vertical clearances under bridges and aerial crossings are shown on the respective charts ar normal pool stage, and at 1913 or 1937 high water stages.

Existing clearances may be determined at open river stages, with reasonable accuracy, by method outlined in "example" below:

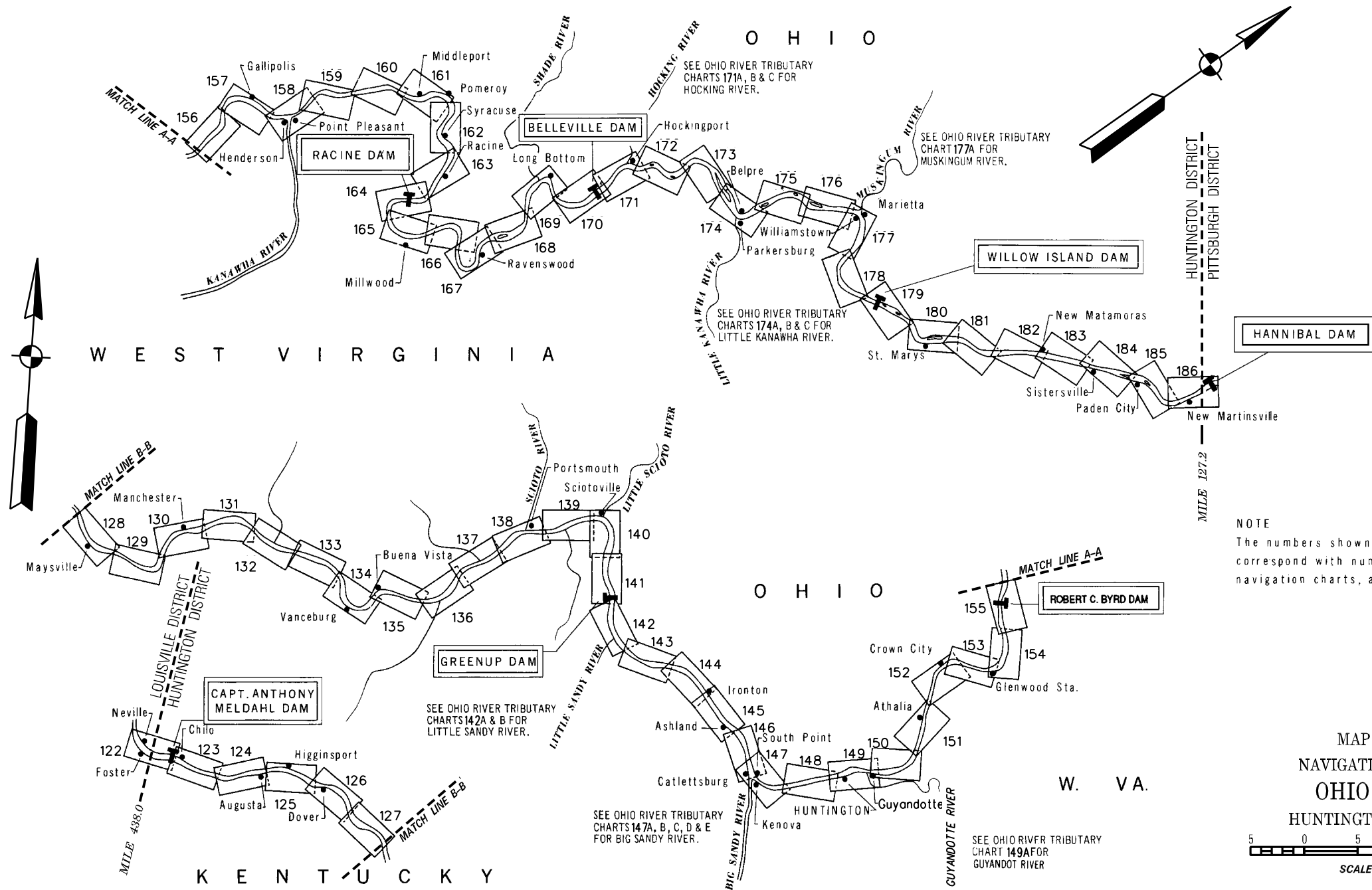
EXAMPLE: B&O R.R. Bridge, Parkersburgh, W. Va.  
Parkersburg Gage:  
H.W. reading 59.0  
Existing reading 48.8  
Difference 10.2  
B&O R.R. Bridge:  
1913 H.W. clearance 31.7  
Existing clearance 41.9

TABLE H.W. GAGE READINGS			
Upper Gage		Upper Gage	
	Reading		Reading
Willow Island Dam	*39.0	Old Dam 28	**69.37
Marietta	*59.63	Ashland, Ky.	**74.0
Parkersburg	*59.0	Greenup Dam	**47.3
Belleville Dam	*40.0	Portsmouth, Ohio	**74.2
Racine Dam	*44.5	Maysville, Ky	**75.3
Mason, Pomeroy	*65.8	Capt. Anthony Meldahl Dam	**46.8
Point Pleasant	**62.72		
Robert C. Byrd Dam	**46.8	*1913	**1937

PERMITS-JURISDICTION

In the administration of laws enacted by Congress for the protection and preservation of navigation and the navigable waters of the United States, the U.S. Army Corps of Engineers exercises jurisdiction over the Kanawha and Ohio Rivers. Work or structures in, under or over the Kanawha or Ohio Rivers between the limits of ordinary high water lines on both banks of the stream require prior authorization. Inquires regarding permits for such work or structures should be addressed to:

Cheif, Regulatory Branch  
U.S. Army Engineer District, Huntington  
502 8th Street  
Huntington W. Va. 25701-2070.



NOTE  
The numbers shown on this map index correspond with numbers of individual navigation charts, as indicated

MAP INDEX  
NAVIGATION CHARTS  
OHIO RIVER  
HUNTINGTON DISTRICT

U. S. ARMY ENGINEER DISTRICT, HUNTINGTON

CHART NO.	LOCALITY
	<u>POOL CAPT. MELDAHL DAM</u>
122	Big Snag Creek Bar & Captain Anthony Meldahl Dam
123	Chilo, OH
124	Augusta, KY
125	Higginsport, OH
126	Ripley, OH
127	Mouth of Eagle Creek & Charleston Bar
128	Maysville, KY
129	Mouth of Cabin Creek
130	Manchester Island & Manchester, OH
131	Concord, KY
132	Brush Creek Island
133	Rome, OH
134	Rockville Point & Vanceburg, KY
135	Buena Vista, Oh
136	Mouth of Kinniconnick Creek & Quincy, KY
137	Mouths of Pond Run & Turkey Creek
138	Portsmouth, OH
139	Bonanza Bar
140	Little Scioto Bar
	<u>POOL GREENUP DAM</u>
141	Burkes Point Bar & Greenup Dam
142	Greenup, KY
143	Riverton, KY & Mouth of Pond Run
144	Ironton, OH
145	Ashland, KY
146	Ashland, KY
146	Catlettsburg, KY
147	Kenova, WV, Mouth of Big Sandy River
148	Burlington, OH & Huntington, WV
149	Huntington, WV & Mouth of Guyandot River
150	Proctorville, OH
151	Miller & Athalia, OH
152	Crown City, OH
153	Mouth of Little Guyandot River & Glenwood Station, WV
154	Straight Ripple

CHART NO.	LOCALITY
	<u>POOL ROBERT C. BYRD DAM</u>
155	Robert C. Byrd Dam
156	Mouth of Raccoon Creek
157	Gallipolis Island & Gallipolis, OH
158	Point Pleasant, WV & Mouth of Kanawha River
159	York Station, WV
160	Eight Mile Island
161	Pomeroy, OH & Middleport, OH
162	Syracuse, OH
163	Racine, OH
	<u>POOL RACINE DAM</u>
164	Racine Dam & Letart Island
165	Millwood, WV
166	Willow Grove, WV
167	Ravenswood, WV
168	Buffington Island & Swann Bar
169	Mouth of Shade River & Long Bottom, OH
	<u>POOL BELLEVILLE DAM</u>
170	Belleville Dam
171	Mouth of Hocking River
172	Newberry & Mustapha Island
173	Blennerhassett Island
174	Mouth of Little Kanawha River, Parkersburg, WV & Head of Blennerhassett Island
175	Neal & Halfway Island
176	Muskingum Island
177	Marietta (Kerr) Island, Marietta, OH & Mouth of Muskingum River
178	Carpenters Bar & Willow Island Dam

CHART NO.	LOCALITY
	<u>POOL WILLOW ISLAND DAM</u>
179	Willow Island Dam & Brothers Islands
180	Middle Island & St. Marys, WV
181	Bat Island & Head of Grape Island
182	Grandview Island
183	Wells Island, Mill Creek Island & New Matamoras, OH
184	Williamson Island & Sistersville, WV
185	Paden City, WV & Paden Island
186	Hook's Bar, Hanibal Dam, New Martinsville, WV

CHART NO.	LOCALITY
	<u>OHIO RIVER TRIBUTARY STREAMS</u>
142A	Little Sandy River
142B	Little Sandy River
147A	Big Sandy River
147B	Big Sandy River
147C	Big Sandy River
147D	Big Sandy River
147E	Big Sandy River
149A	Guyandot River
171A	Hocking River
171B	Hocking River
171C	Hocking River
174A	Little Kanawha River
174B	Little Kanawha River
174C	Little Kanawha River
177A	Muskingum River

TABULAR INDEX  
NAVIGATION CHARTS  
OHIO RIVER  
HUNTINGTON DISTRICT

**REGULATIONS**  
**PRESCRIBED BY THE SECRETARY OF THE ARMY FOR THE**  
**OHIO AND MISSISSIPPI RIVERS, ABOVE CAIRO, ILL., AND THEIR TRIBUTARIES;**  
**USE, ADMINISTRATION AND NAVIGATION**

**THE LAW**

Section 7 of the River and Harbor Act of August 8, 1917, provides as follows:

"That it shall be the duty of the Secretary of War to prescribe such regulations for the use, administration, and navigation of the navigable waters of the United States as in his judgment the public necessity may require for the protection of life and property, or of operations of the United States in channel improvement, covering all matters not specifically delegated by law to some other executive department. Such regulations shall be posted, in conspicuous and appropriate places, for the information of the public; and every person and every corporation which shall violate such regulations shall be deemed guilty of a misdemeanor and, on conviction thereof in any district court of the United States within whose territorial jurisdiction such offense may have been committed, shall be punished by a fine not exceeding \$500, or by imprisonment (in the case of a natural person) not exceeding six months, in the discretion of the court."

In pursuance of the law above quoted, the following regulations were prescribed to govern the use, administration, and navigation of the Ohio River above Cairo, Ill., and its tributaries.

207.300 Ohio River, above Cairo, Ill., and their tributaries; use, administration, and navigation.

(a) Authority of Lockmasters. The lockmaster shall be charged with the immediate control and management of the lock, and of the area set aside as the lock area, including the lock approach channels. He shall see that all laws, rules, and regulations for the use of the lock and lock area are duly complied with, to which end he is authorized to give all necessary orders and directions in accordance therewith, both to employees of the Government and to any and every person within the limits of the lock or lock area, whether navigating the lock or not. No one shall cause any movement of any vessel, boat, or other floating thing in the lock or approaches except by or under the direction of the lockmaster or his assistants. In the event of an emergency, the lockmaster may depart from these regulations as he deems necessary. The lockmasters shall also be charged with the control and management of Federally constructed mooring facilities.

(b) Safety Rules for Vessels Using Navigation Locks. The following safety rules are hereby prescribed for vessels in the locking process, including the act of approaching or departing a lock:

(1) Tows with Flammable or Hazardous Cargo Barges, Loaded or Empty.

(i) Stripping barges or transferring cargo is prohibited.

(ii) All hatches on barges used to transport flammable or hazardous materials shall be closed and latched, except those barges carrying a gas-free certificate.

(iii) Spark-proof protective rubbing fenders ("possums") shall be used.

(2) All Vessels.

(i) Leaking vessels may be excluded from locks until they have been repaired to the satisfaction of the lockmaster.

(ii) Smoking, open flames, and chipping or other spark-producing activities are prohibited on deck during the locking cycle.

(iii) Painting will not be permitted in the lock chamber during the locking cycle.

(iv) Tow speeds shall be reduced to a rate of travel such that the tow can be stopped by checking should mechanical difficulties develop. Pilots should check with the individual lockmasters concerning prevailing conditions. It is also recommended that pilots check their ability to reverse their energies prior to beginning an approach. Engines shall not be turned off in the lock until the tow has stopped and been made fast.

(v) U.S. Coast Guard Regulations require all vessels to have on board life saving devices for prevention of drowning. All crew members of vessels required to carry work vests (life jackets) shall wear them during a lockage, except those persons in an area enclosed with a handrail or other device which would reasonably preclude the possibility of falling overboard. All deckhands handling lines during locking procedures shall wear a life jacket. Vessels not required by Coast Guard Regulations to have work vests aboard shall have at least the prescribed life saving devices, located for ready access and use if needed. The lockmaster may refuse lockage to any vessel which fails to conform to the above.

(c) Reporting of Navigation Incidents. In furtherance of increased safety on waterways the following safety rules are hereby prescribed for all navigation interests:

(1) Any incident resulting in uncontrolled barges shall immediately be reported to the nearest lock. The report shall include information as to the number of loose barges, their cargo, and the time and location where they broke loose. The lockmaster or locks shall be kept informed of the progress being made in bringing the barges under control so that he can initiate whatever actions may be warranted.

(2) Whenever barges are temporarily moored at other than commercial terminals or established fleeting areas, and their breaking away could endanger a lock, the nearest lock shall be so notified, preferably the downstream lock.

(3) Sunken or sinking barges shall be reported to the nearest lock both downstream and upstream of the location in order that other traffic passing these points may be advised of the hazards.

(4) In the event of an oil spill, notify the nearest lock downstream, specifying the time and location of the incident, type of oil, amount of spill, and what recovery or controlling measures are being employed.

(5) Any other activity on the waterways that could conceivably endanger navigation or a navigation structure shall be reported to the nearest lock.

(6) Whenever it is necessary to report an incident involving uncontrolled, sunken or sinking barges, the cargo in the barges shall be accurately identified.

(d) Precedence at Locks.

(1) The vessel arriving first at a lock shall normally be first to lock through, but precedence shall be given to vessels belonging to the United States. Licensed commercial passenger vessels operating on a published schedule or regularly operating in the "for hire" trade shall have precedence over cargo tows and like craft. Commercial cargo tows shall have precedence over recreational craft, except as described in paragraph (f).



(2) Arrival posts or markers may be established above and /or below the locks. Vessels arriving at or opposite such posts or markers will be considered as having arrived at the locks within the meaning of this paragraph. Precedence may be established visually or by radio communication. The lockmaster may prescribe such departure from the normal order of precedence as in his judgment is warranted to achieve best lock utilization.

(e) Unnecessary Delay at Locks. Masters and pilots must use every precaution to prevent unnecessary delay in entering or leaving locks. Vessels failing to enter locks with reasonable promptness when signalled to do so shall lose their turn. Rearranging or switching of barges in the locks or in approaches is prohibited unless approved or directed by the lockmaster. This is not meant to curtail "jackknifing" or set-overs where normally practiced.

(f) Lockage of Recreation Craft.

In order to fully utilize the capacity of the lock, the lockage of recreational craft shall be expedited by locking them through with commercial craft, provided that both parties agree to joint use of the chamber. When recreational craft are locked simultaneously with commercial tows, the lockmaster will direct, whenever practicable, that the recreational craft enter the lock and depart while the tow is secured in the lock. Recreational craft will not be locked through with vessels carrying volatile cargoes or other substances likely to emit toxic or explosive vapors. If the lockage of recreational craft can not be accomplished within the time required for three other lockages, a separate lockage of recreational craft shall be made. Recreational craft operators are advised that many locks have a pull chain located at each end of the lock which signals the lockmaster that lockage is desired.

(g) Simultaneous Lockage of Tows with Dangerous Cargoes.

Simultaneous lockage of other tows with tows carrying dangerous cargoes or containing flammable vapors normally will only be permitted when there is agreement between the lockmaster and both vessel masters that the simultaneous lockage can be executed safely. He shall make a separate decision each time such action seems safe and appropriate, provided:

(1) The first vessel or tow in and the last vessel or tow out are secured before the other enters or leaves.

(2) Any vessel or tow carrying dangerous cargoes is not leaking.

(3) All masters involved have agreed to the joint use of the lock chamber.

(h) Stations While Awaiting Lockage. Vessels awaiting their turn to lock shall remain sufficiently clear of the structure to allow unobstructed departure for the vessel leaving the lock. However, to the extent practicable under the prevailing conditions, vessels and tows shall position themselves so as to minimize approach time when signaled to do so.

(i) Stations While Awaiting Access Through Navigable Pass. When navigable dams are up or are in the process of being raised or lowered, vessels desiring to use the pass shall wait outside the limits of the approach points unless authorized otherwise by the lockmaster.

(j) Signals. Signals from vessels shall ordinarily be by whistle; signals from locks to vessels shall be by whistle, another sound devise, or visual means. When a whistle is used, long blasts of the whistle shall not exceed 10 seconds and short blasts of the whistle shall not exceed 3 seconds. Where a lock is not provided with a sound or visual signal installation, the lockmaster will indicate by voice or by the wave of a hand when the vessels may enter or leave the lock. Vessels must approach the locks with caution and shall not enter nor leave the lock until signaled to do so by the lockmaster.

The following lockage signals are prescribed:

(1) Sound Signals by Means of a Whistle. These signals apply at either a single lock or twin locks.

(i) Vessels desiring lockage shall on approaching a lock give the following signals at a distance of not more than one mile from the lock:

(a) If a single lockage only is required: One long blast of the whistle followed by one short blast.

(b) If a double lockage is required: One long blast of the whistle followed by two short blasts.

(ii) When the lock is ready for entrance, the lock will give the following signals:

(a) One long blast of the whistle indicates permission to enter the lock chamber in the case of a single lock or to enter the landward chamber in the case of twin locks.

(b) Two long blasts of the whistle indicates permission to enter the riverward chamber in the case of twin locks.

(iii) Permission to leave the locks will be indicated by the following signals given by the lock:

(a) One short blast of the whistle indicates permission to leave the lock chamber in the case of a single lock or to leave the landward chamber in the case of twin locks.

(b) Two short blasts of the whistle indicates permission to leave the riverward chamber in the case of twin locks.

(iv) Four or more short blasts of the lock whistle delivered in rapid succession will be used as a means of attracting attention, to indicate caution, and to signal danger. This signal will be used to attract the attention of the captain and crews of vessels using or approaching the lock or navigating in its vicinity and to indicate that something unusual involving or requiring special caution is happening or is about to take place. When this signal is given by the lock, the captains and crews of vessels in the vicinity shall immediately become on the alert to determine the reason for the signal and shall take the necessary steps to cope with the situation.

(2) Lock Signal Lights. At locks where density of traffic or other local conditions make it advisable, the sound signals from the lock will be supplemented by signal lights. Flashing lights (showing a one-second flash followed by a two-second eclipse) will be located on or near each end of the land wall to control use of a single lock or of the landward lock of double locks. In addition, at double locks, interrupted flashing lights (showing a one-second flash, a one-second eclipse and a one-second flash, followed by a three-second eclipse) will be located on or near each end of the intermediate wall to control use of the riverward lock. Navigation will be governed as follows:

Red Light. Lock cannot be made ready immediately. Vessel shall stand clear.

Amber Light. Lock is being made ready. Vessel may approach but under full control.

Green Light. Lock is ready for entrance.

Green and Amber. Lock is ready for entrance but gates cannot be recessed completely. Vessel may enter under full control and with extreme caution.

## REGULATIONS (Continued)

(3) Radio Communications. VHF-FM radios, operating in the FCC authorized Maritime Band, have been installed at all operational locks. Radio contact may be made by any vessel desiring passage. Commercial tows are especially requested to make contact at least one half hour before arrival in order that the pilot may be informed of current river and traffic conditions that may affect the safe passage of his tow.

All locks monitor 156.8 MHz (Ch.16) and 156.65 MHz (Ch.13) and can work 156.65 MHz (Ch.13) and 156.7 MHz (Ch.14) Ch.16 is the authorized call, reply and distress frequency, and locks are not permitted to work on this frequency except in an emergency involving the risk of immediate loss of life or property. Vessels may call and work Ch.13, without switching, but are cautioned that vessel to lock traffic must not interrupt or delay Bridge to Bridge traffic which has priority at all times.

(k) Rafts. Rafts to be locked through shall be moored in such manner as not to obstruct the entrance of the lock and if to be locked in sections, shall be brought to the lock as directed by the lockmaster. After passing the lock the sections shall be reassembled at such distance beyond the lock as not to interfere with other vessels.

(l) Entrance to and Exit from Locks. In case two or more boats or tows are to enter for the same lockage, their order of entry shall be determined by the lockmaster. Except as directed by the lockmaster, no boat shall pass another in the lock. In no case will boats be permitted to enter or leave the locks until directed to do so by the lockmaster. The sides of all craft passing through any lock shall be free from projections of any kind which might injure the lock walls. All vessels shall be provided with suitable fenders, and shall be used to protect the lock and guide walls until it has cleared the lock and guide walls.

(m) Mooring.

(1) At Locks.

(i) All vessels when in the locks shall be moored as directed by the lockmaster. Vessels shall be moored with bow and stern lines leading in opposite directions to prevent the vessel from "running" in the lock. All vessels will have one additional line available on the head of the tow for emergency use. The pilothouse shall be attended by qualified personnel during the entire locking procedure.

When the vessel is securely moored, the pilot shall not cause movement of the propellers except in emergency or unless directed by the lockmaster. Tying to lock ladders is strictly prohibited.

(ii) Mooring of unattended or nonpropelled vessels or small craft at the upper or lower channel approaches will not be permitted within 1200 feet of the lock.

(2) Outside of Locks.

(i) No vessel or other craft shall regularly or permanently moor in any reach of a navigation channel. The approximate centerline of such channels are marked as the sailing line on Corps of Engineers' navigation charts. Nor shall any floating craft, except in an emergency, moor in any narrow or hazardous section of the waterway. Furthermore, all vessels or other craft are prohibited from regularly or permanently mooring in any section of navigable waterways which are congested with commercial facilities or traffic unless it is moored at facilities approved by the Secretary of the Army or his authorized representative. The limits of the congested areas shall be marked on Corps of Engineers' navigation charts. However, the District Engineer may authorize in writing exceptions to any of the above if, in his judgment, such mooring would not adversely affect navigation and anchorage.

(ii) No vessel or other craft shall be moored to railroad tracks, to riverbanks in the vicinity of railroad tracks when such mooring threatens the safety of equipment using tracks, to telephone poles or power poles, or to bridges or similar structures used by the public.

(iii) Except in case of great emergency, no vessel or craft shall anchor over revetted banks of the river, and no floating plant other than launches and similar small craft shall land against banks protected by revetment except a regular commercial landings. In all cases, every precaution to avoid damage to the revetment works shall be exercised. The construction of log rafts along matted or paved banks or the tying up and landing of log rafts against such banks shall be performed in such a manner as to cause no damage to the mattress work or bank paving. Generally, mattress work extends out into the river 600 feet from the low water line.

(iv) Any vessel utilizing a federally constructed mooring facility (e.g., cells, buoys, anchor rings) at the points designated on the current issue of the Corps' navigation charts shall advise the

lockmaster at the nearest lock that from point by the most expeditious means.

(n) Draft of Vessels. No vessel shall attempt to enter a lock unless its draft is at least three inches less than the least depth of water over the guard sills, or over the gate sill if there be no guard sills. Information concerning controlling depth over sills can be obtained from the lockmaster at each lock or by inquiry at the office of the district engineer of the district in which the lock is located.

(o) Handling Machinery. No one but employees of the United States shall move any lock machinery except as directed by the lockmaster. Tampering or meddling with the machinery or other parts of the lock is strictly forbidden.

(p) Refuse in Locks. Placing or discharging refuse of any description into the lock, on lock walls or esplanade, canal or canal bank is prohibited.

(q) Damage to Locks or Other Work. To avoid damage to plant and structures connected with the construction or repair of locks and dams, vessels passing structures in the process of construction or repair shall reduce their speed and navigate with special caution while in the vicinity of such work. The restrictions and admonitions contained in these regulations shall not affect the liability of the owners and operators of floating craft for any damage to locks or other structures caused by the operation of such craft.

(r) Trespass on Lock Property. Trespass on locks or dams or other United States property pertaining to the locks or dams is strictly prohibited except in those areas specifically permitted. Parties committing any injury to the locks or dams or to any part thereof will be responsible therefor. Any person committing a willful injury to any United States property will be prosecuted. No fishing will be permitted from lock walls, guide walls, or guard walls of any lock or from any dam except in areas designated and posted by the responsible District Engineer as fishing areas. Personnel from commercial and recreational craft will be allowed on the lock structure for legitimate business reasons; e.g., crew changes, emergency phone calls, etc.

(s) Restricted Areas at Locks and Dams. All waters immediately above and below each dam, as posted by the respective District Engineers, are hereby designated as restricted areas. No vessel

or other floating craft shall enter any such restricted area at any time. The limits of the restricted areas at each dam will be determined by the responsible District Engineer and marked by signs and /or flashing red lights installed in conspicuous and appropriate places.

(t) Statistical Information.

(1) Masters of vessels shall furnish to the lockmaster such statistics of passengers or cargo as may be requested.

(2) The owners or masters of vessels sunk in the navigable waters of the United States shall provide the appropriate District Engineer with a copy of the sunken vessel report furnished to the U.S. Coast Guard Marine Inspection Office in accordance with Code of Federal Regulations Title 33 Subpart 64.10-1.

(u) Operations during High Water and Floods in Designated Vulnerable Areas. Vessels operating on these waters during periods when river stages exceed the level of "ordinary high water," as designated on Corps of Engineers' navigation charts, shall exercise reasonable care to minimize the effects of their bow waves and propeller washes on river banks; submerged structures or habitations; terrestrial growth such as trees and bushes; and manmade amenities that may be present. Vessels shall operate carefully when passing close to levees and other flood protection works, and shall observe minimum distances from banks which may be prescribe from time to time in Notices to Navigation Interests. Pilots should exercise particular care not to direct propeller wash at river banks, levees, revetments, structures or other appurtenances subject to damage from wave action.

(v) Navigation Lights for Use at All Locks and Dams.

(1) At locks at all fixed dams and at locks at all movable dams when the dams are up so that there is no navigable pass through the dam, the following navigation lights will be displayed during hours of darkness.

(a) Three green lights visible through an arc of 360° arranged in a vertical line on the upstream end of the river (guard) wall unless the intermediate wall extends farther upstream. In the latter case, the lights will be placed on the upstream end of the intermediate wall.

(b) Two green lights visible through an arc of 360° arranged in a vertical line on the downstream end of the river (guard) wall unless the intermediate wall extends farther downstream. In the

latter case, the lights will be placed on the downstream end of the intermediate wall.

(c) A single red light, visible through an arc of 360° on each end (upstream and downstream) of the land (guide) wall.

(2) At movable dams when the dam has been lowered or partly lowered so that there is an unobstructed navigable pass through the dam, the navigation lights indicated in the following paragraphs will be displayed during hours of darkness until lock walls and weir piers are awash.

(a) Three red lights visible through an arc of 360° arranged in a vertical line on the upstream end of the river (guard) wall.

(b) Two red lights visible through an arc of 360° arranged in a vertical line on the downstream end of the river (guard) wall.

(c) A single red light visible through an arc of 360° on each end (upstream and downstream) of the land (guide) wall.

(3) After lock walls and weir piers are awash they will be marked as prescribed in paragraph (x) below.

(4) If one or more bear traps or weirs are open or partially open, and may cause a set in current conditions at the upper approach to the locks, this fact will be indicated by displaying a white circular disk 5 feet in diameter, on or near the light support on the upstream end of the land (guide) wall during the hours of daylight, and will be indicated during hours of darkness by displaying a white (amber) light vertically under and 5 feet below the red light on the upstream end of the land (guide) wall.

(x) Buoys at Movable Dams.

(1) Whenever the river (guard) wall of the lock and any portion of the dam are awash, and until covered by a depth of water equal to the project depth, the limits of the navigable pass through the dam will be marked by buoys located at the upstream and downstream ends of the river (guard) wall, and by a single buoy over the end or ends of the portion or portions of the dam adjacent to the navigable pass over which project depth is not available. A red nun-type buoy will be used for such structures located on the left-hand side (facing downstream) of the river and a green can-type buoy for such structures located on the right-hand side. Buoys will be lighted, if practicable.

(2) Where powerhouses or other substantial structures projecting considerably above the level of the lock wall are located on the river (guard) wall, a single red light located on top of one of these structures may be used instead of river wall buoys prescribed above until these structures are awash, after which they will be marked by a buoy of appropriate type and color (red nun or green can buoy) until covered by a depth of water equal to the project depth. Buoys will be lighted, if practicable.

(y) Vessels to Carry Regulations. A copy of these regulations shall be kept at all times on board each vessel regularly engaged in navigating the rivers to which these regulation apply. Copies may be obtained from any lock office or District Engineer's office on request. Masters of such vessels are encouraged to have on board copies of the current edition of appropriate navigation charts.

NOTE: These regulations are those in effect 31 July 1975.

# EXTRACT FROM SECTIONS 15 AND 16 OF THE RIVER AND HARBOR ACT OF 1899

SECTION 15. That it shall not be lawful to tie up or anchor vessels or other craft in navigable channels in such a manner as to prevent or obstruct the passage of other vessels or craft; or to sink, or permit or cause to be sunk, vessels or other craft in navigable channels; or to float loose timber and logs, or to float what is known as sack rafts of timber and logs in streams or channels actually navigated by steamboats in such manner as to obstruct, empede, or endanger navigation. And whenever a vessel, raft, or other craft is wrecked and sunk in a navigable channel, it shall be the duty of the owner, lessee, or operator of such sunken craft to immediately mark it with a buoy or beacon during the day and a lighted lantern at night, and to maintain such marks until the sunken craft is removed or abandoned, and the neglect or failure of the said owner, lessee, or operator so to do shall be unlawful; and it shall be the duty of the owner, lessee, or operator of such sunken craft to commence the immediate removal of the same, and prosecute such removal dilligently, and failure to do so shall be considered as an abandonment of such craft, and subject the same to removal by the United States as hereinafter provided for (30 Stat. 1152; 33 U.S.C. § 409).

SECTION 16. That every person and every corporation that shall violate, or that shall knowingly aid, abet, authorize, or instigate a violation of the provisions of sections thirteen, fourteen, and fifteen of this Act shall be guilty of a misdemeanor, and on conviction thereof shall be punished by a fine not exceeding twenty-five hundred dollars nor less than five hundred dollars, or by imprisonment (in the case of a natural person) for not less than thirty days nor more than one year, or by both such fine and imprisonment, in the discreation of the court, one-half of said fine to be paid to the person or persons giving information which shall lead to conviction (30 Stat. 1153; 33 U.S.C. § 411). And any and every master, pilot, and engineer, or person or persons acting in such capacity, respectively, on board of any boat or vessel who shall knowingly engage in towing any scow, boat, or vessel loaded with any material specified in section thirteen of this Act to any point or place or deposit or discharge in any harbor or navigable water, elsewhere than within the limits defined and permitted by the Secretary of War, or who shall willfully injure or destroy any work of the United States contemplated in section fourteen of this Act, or who shall willfully obstruct the channel of any waterway in the manner contemplated in section fifteen of this Act, shall be deemed guilty of a violation of this Act, and shall upon conviction be punished as hereinbefore provided in this section, and shall also have his license revoked or suspended for a term to be fixed by the judge before whom tried and convicted. And any boat, vessel, scow, raft, or other craft used or employed in violating any of the provisions of sections thirteen, fourteen, and fifteen of this Act shall be liable for the pecuniary penalties specified in this section, and in addition thereto for the amount of the damages done by said boat, vessel, scow, raft, or other craft, which latter sum of the harbor or or waterway in which the damage occurred, and said boat, vessel, scow, raft, or other craft may be proceeded against summarily by way of libel in any district court of the United States having jurisdiction thereof (30 Stat. 1153; 33 U.S.C. § 412).



# EXTRACT FROM SECTIONS 19 AND 20 OF THE RIVER AND HARBOR ACT OF 1899

SECTION 19. (a) That whenever the navigation of any river, lake, harbor, sound, bay, canal, or other navigable waters of the United States shall be obstructed or endangered by any sunken vessel, boat, watercraft, raft, or other similar obstruction, and such obstruction has existed for a longer period than thirty days, or whenever the abandonment of such obstruction can be legally established in a less space of time, the sunken vessel, boat, watercraft, raft, or other obstruction shall be subject to be broken up, removed, sold, or otherwise disposed of by the Secretary of War at his discretion, without liability for any damage to the owners of the same; PROVIDED, That in his discretion, the Secretary of War may cause reasonable notice of such obstruction of not less than thirty days, unless the legal abandonment of the obstruction can be established in a less time, to be given by publication, addressed "To whom it may concern", in a newspaper published nearest to the locality of the obstruction, requiring the removal thereof; AND PROVIDED ALSO, That the Secretary of War may, in his discretion, at or after the time of giving such notice, cause sealed proposals to be solicited by public advertisement, giving reasonable notice of less than ten days, for the removal of such obstruction as soon as possible after the expiration of the above specified thirty days' notice, in case it has not in the meantime been so removed, these proposals and contracts, at his discretion, to be conditioned that such vessel, boat, watercraft, raft, or other obstruction, and all cargo and property contained therein, shall become the property of the contractor, and the contract shall be awarded to the bidder making the proposition most advantageous to the United States; PROVIDED, That such bidder shall give satisfactory security to execute the work; PROVIDED FURTHER, That any money received from the sale of any such wreck, or from any contractor for the removal of wrecks, under this paragraph shall be covered into the Treasury of the United States (30 Stat. 1154; 33 U.S.C. § 414).

(b) The owner, lessee, or operator of such vessel, boat, watercraft, raft, or other obstruction as described in this section shall be liable to the United States for the cost of removal or destruction and disposal as described which exceeds the costs recovered under subsection (a). Any amount recovered from the owner, lessee, or operator of such vessel pursuant to this subsection to recover costs in excess of the proceeds from the sale or disposition of such vessel shall be deposited in the general fund of the Treasury of the United States.

SECTION 20. (a) That under emergency, in the case of any vessel, boat, watercraft, or raft, or other similar obstruction, sinking or grounding, or being unnecessarily delayed in any Government canal or lock, or in any navigable waters mentioned in section nineteen, in such manner as to stop, seriously interfere with, or specially endanger navigation, in the opinion of the Secretary of War, or any agent of the United States to whom the Secretary may delegate proper authority, the Secretary of War or any such agent shall have the right to take immediate possession of such boat, vessel, or other watercraft, or raft, so far as to remove or to destroy it and to clear immediately the canal, lock, or navigable waters aforesaid of the obstruction thereby caused, using his best judgment to prevent any unnecessary injury; and no one shall interfere with or prevent such removal or destruction; PROVIDED, That the officer or agent charged with the removal or destruction of an obstruction under this section may in his discretion give notice in writing to the owners of any such obstruction requiring them to remove it; AND PROVIDED FURTHER, That the expense of removing any such obstruction as aforesaid shall be a charge against such craft and cargo; and if the owners thereof fail or refuse to reimburse the United States for such expense within thirty days after notification, then the officer or agent aforesaid may sell the craft or cargo, or any part thereof that may not have been destroyed in removal, and the proceeds of such sale shall be covered into the Treasury of the United States (30 Stat. 1154; 33 U.S.C. § 415).

(b). The owner, lessee, or operator of such vessel, boat, watercraft, raft, or other obstruction as described in this section shall be liable to the United States for the cost of removal or destruction and disposal as described which exceeds the costs recovered under subsection (a). Any amount recovered from the owner, lessee, or operator of such vessel pursuant to this subsection to recover costs in excess of the proceeds from the sale or disposition of such vessel shall be deposited in the general fund of the Treasury of the United States.

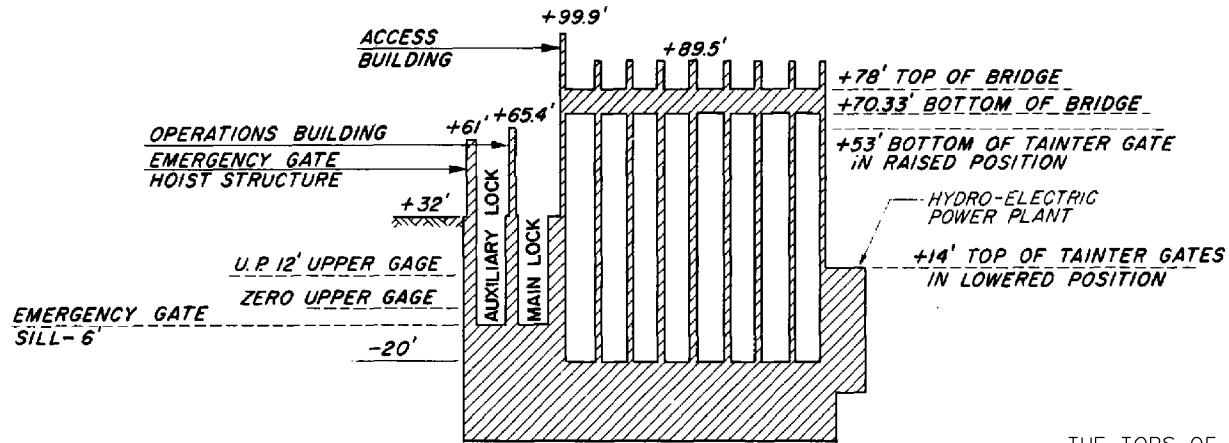
JURISDICTIONAL LIMITS, ADDRESSES, AND TELEPHONE NUMBERS OF COAST GUARD OFFICIALS:

The following information is furnished for the guidance and assistance of those persons required by law to report to, or who otherwise desire to contact, cognizant Coast Guard officials:

Commanding Officer Marine Safety Office U.S. Coast Guard Suite 700, Kossman Building Forbes Avenue & Stanwix Street Pittsburgh, Pennsylvania 15222-1371	(412) 644-5808	Mile 0.0-121.6	Coast Guard Group Ohio Valley U.S. Customs-Court House Snyder Bldg. 601 West Broadway Street Louisville, Kentucky 40202-2229	(502) 582-6474	Mile 0.0-918.0
Commanding Officer Marine Safety Office U.S. Coast Guard 1415 6th Avenue Huntington, West Virginia 25725-2412	(304) 529-5524	Mile 121.6-374.8	Coast Guard Cutter Osage Foot of McKnown Lane Sewickley, Pennsylvania 15143-2093	(412) 741-1180	Ohio River Mile 0.0-266.4
Commanding Officer Marine Safety Office U.S. Coast Guard P.O. Box 1153 600 Federal Place, Room 360A Louisville, Kentucky 40202-2230	(502) 582-5194	Mile 374.8-867.3	Coast Guard Cutter Obion 201 Coast Guard Lane Owensboro, Kentucky 42301-0277	(502) 685-0650	Ohio River Mile 266.4-720.0 Kanawha River Mile 0.0-89.2
Commanding Officer Marine Safety Office U.S. Coast Guard P.O. Box 7509 Room 209, Katterjohn Building 1501 Broadway Paducah, Kentucky 42002-7509	(502) 442-1621	Mile 867.3-981.0	Coast Guard Cutter Chippewa 201 Coast Guard Lane Owensboro, Kentucky 42301-0277	(502) 684-4765	Mile 720.0-981.0
Supervisor Marine Safety Detachment U.S. Coast Guard 4335 River Road Cincinnati, Ohio 45204-1094	(513) 684-3295	Mile 374.8-531.5	<i>NOTE: Report oil or chemical spills to the nearest Coast Guard Marine Safety Office or to the National Response Center, Toll Free (800) 424-8802.</i>		

RIVER WALL 42'  
 LOCK 110' X 1200'  
 MIDDLE WALL 42'  
 LOCK 110' X 600'  
 LAND WALL

UPPER GAGE:	
ZERO EL.	548.0'
P.P. READS	12.0'
LOWER GAGE:	
ZERO EL.	526.0'
P.P. READS	12.0'



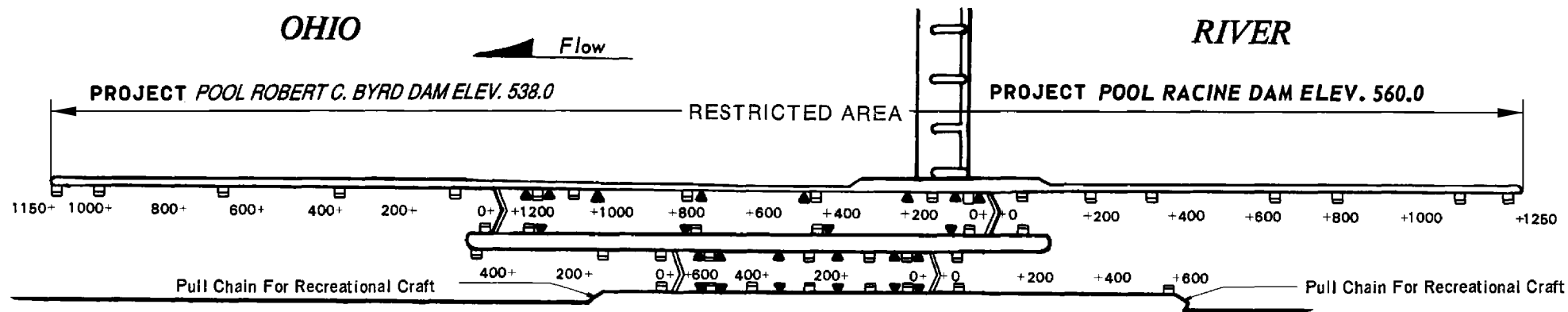
(ELEVATION LOOKING DOWNSTREAM)  
 No Scale

NOTE

THE TOPS OF THE UPPER AND LOWER MITER  
 GATE SILL OF THE MAIN AND AUXILIARY LOCKS  
 ARE AT ELEVATION 523.0 FEET, M.S.L.

①

AERIAL POWER CROSSING  
 ELEVATION LOW POINT OS SAG 650.0'  
 VERTICAL CLEARANCE AT POOL STAGE 90.0'  
 VERTICAL CLEARANCE - 1913 H.W. 57.0'



LEGEND

- ▲ FLOATING MOORING BIT
- ▢ LADDERS—Black and White striped.
- 200+ Distance in feet from gate.

WEST VIRGINIA

Scale: 1 inch equals 400 feet.

NOTE:  
 Ordinary high water - 560.2 (mile 237)  
 Maximum locking stage 49.9' lower gage

RACINE  
 LOCKS AND DAM  
 MILE 237.5

- ① AERIAL POWER CROSSING
- ② MARTIN MARIETTA MATERIALS
- ③ LETART CORP.
- (FLASHING RED LIGHT)
- ④ LARRYS LOCKER MARINA
- ⑤ JAY MAR INC.

## PLANTS

OHIO  
MEIGS COUNTY

# LETART FALLS

TOMBLESON  
RUN

LETART ISLAND LIGHT  
FL(2)R5S TR(D) TR(U)  
235.3

LETART

RACINE DAM  
MILE 237.5

MAXIMUM LOCKING STAGE  
49.9 FT, LOWER GAGE  
TELEPHONE 304-882-2118

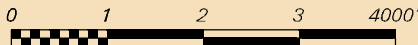
RACINE LOCKS & DAM  
UPPER DAYMARK  
TR(U) TR(D) 236.8

WEST VIRGINIA  
MASON COUNTY

NOTE:  
SEE OPPOSITE PAGE FOR CLEARANCE DATA  
PERTAINING TO AERIAL CROSSINGS AND  
BRIDGES.

NOTE:  
WHEN THE RIVER LEVEL IS ABOVE THE  
PROJECT POOL ELEVATION, ALL  
VESSELS SHOULD BE OPERATING NEAR  
THE SAILING LINE TO PREVENT DAMAGE  
TO RIVER BANKS AND STRUCTURES  
SITUATED THERON OR ADJACENT THERET  
(SEE 33 CFR 207.300(U)).

# OHIO RIVER



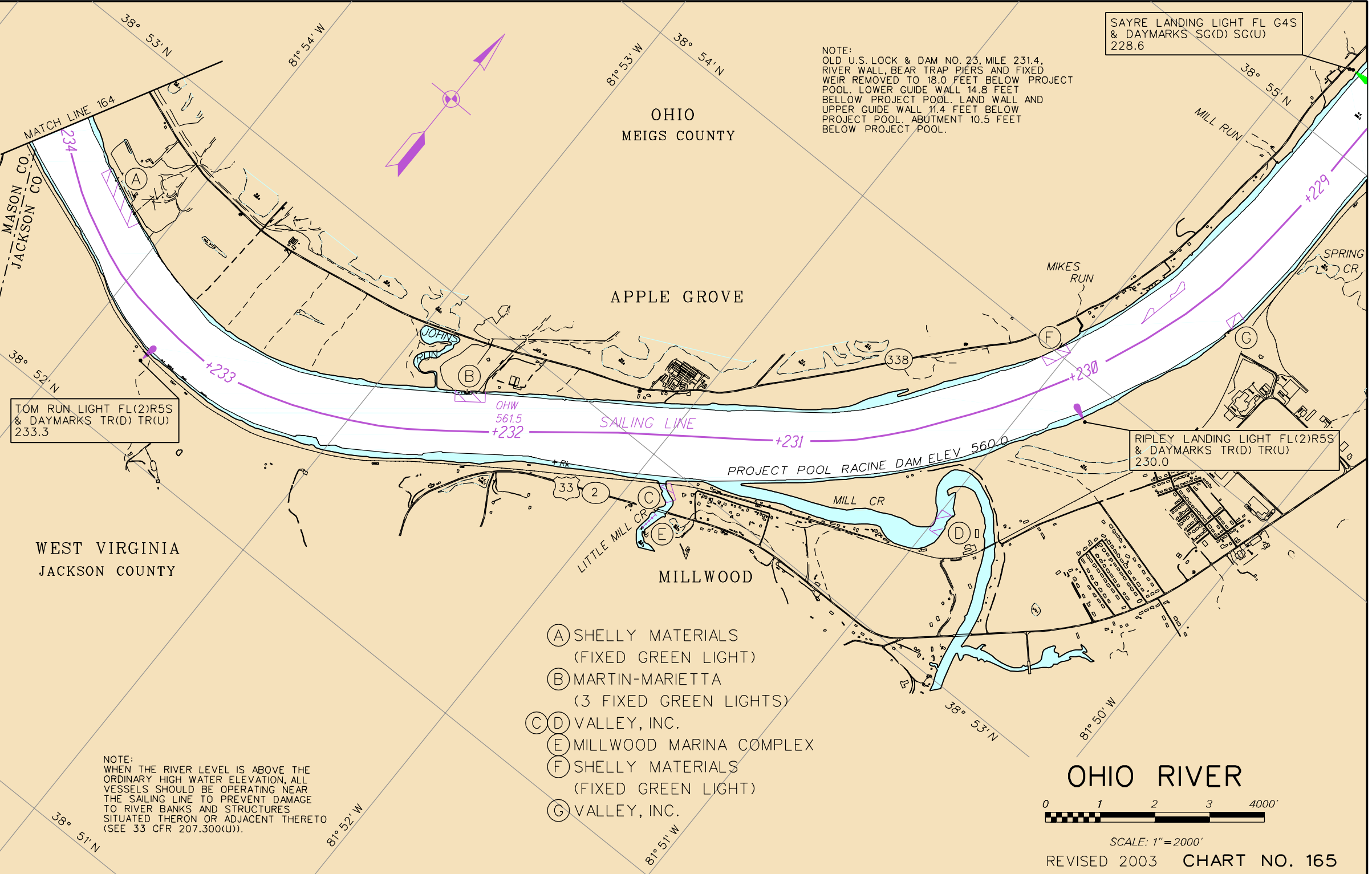
SCALE: 1" = 2000

REVISÉ 2003 CHART NO. 164



SAYRE LANDING LIGHT FL G4S  
& DAYMARKS SG(D) SG(U)  
228.6

NOTE:  
OLD U.S. LOCK & DAM NO. 23, MILE 231.4,  
RIVER WALL, BEAR TRAP PIERS AND FIXED  
WEIR REMOVED TO 18.0 FEET BELOW PROJECT  
POOL. LOWER GUIDE WALL 14.8 FEET  
BELOW PROJECT POOL. LAND WALL AND  
UPPER GUIDE WALL 11.4 FEET BELOW  
PROJECT POOL. ABUTMENT 10.5 FEET  
BELOW PROJECT POOL.



①

AERIAL POWER CROSSING

ELEVATION LOW POINT OF SAG	647.6'
VERTICAL CLEARANCE AT POOL STAGE	87.6'
VERTICAL CLEARANCE - 1913 H.W.	50.6'

②

AERIAL POWER CROSSING

ELEVATION LOW POINT OF SAG	647.6'
VERTICAL CLEARANCE AT POOL STAGE	87.6'
VERTICAL CLEARANCE - 1913 H.W.	50.3'

OHIO  
MEIGS COUNTY

NOTE:  
SEE OPPOSITE PAGE FOR CLEARANCE DATA  
PERTAINING TO AERIAL CROSSINGS AND  
BRIDGES.

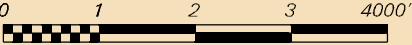
NOTE:  
WHEN THE RIVER LEVEL IS ABOVE THE  
ORDINARY HIGH WATER ELEVATION, ALL  
VESSELS SHOULD BE OPERATING NEAR  
THE SAILING LINE TO PREVENT DAMAGE  
TO RIVER BANKS AND STRUCTURES  
SITUATED THEREON OR ADJACENT THERETO  
(SEE 33 CFR 207.300(U)).

OLD TOWN ISLAND LIGHT FL G4S  
& DAYMARKS SG(D) SG(U) 226.3

GRANNY RUN LIGHT FL G4S  
& DAYMARKS SG(D) SG(U)  
225.5

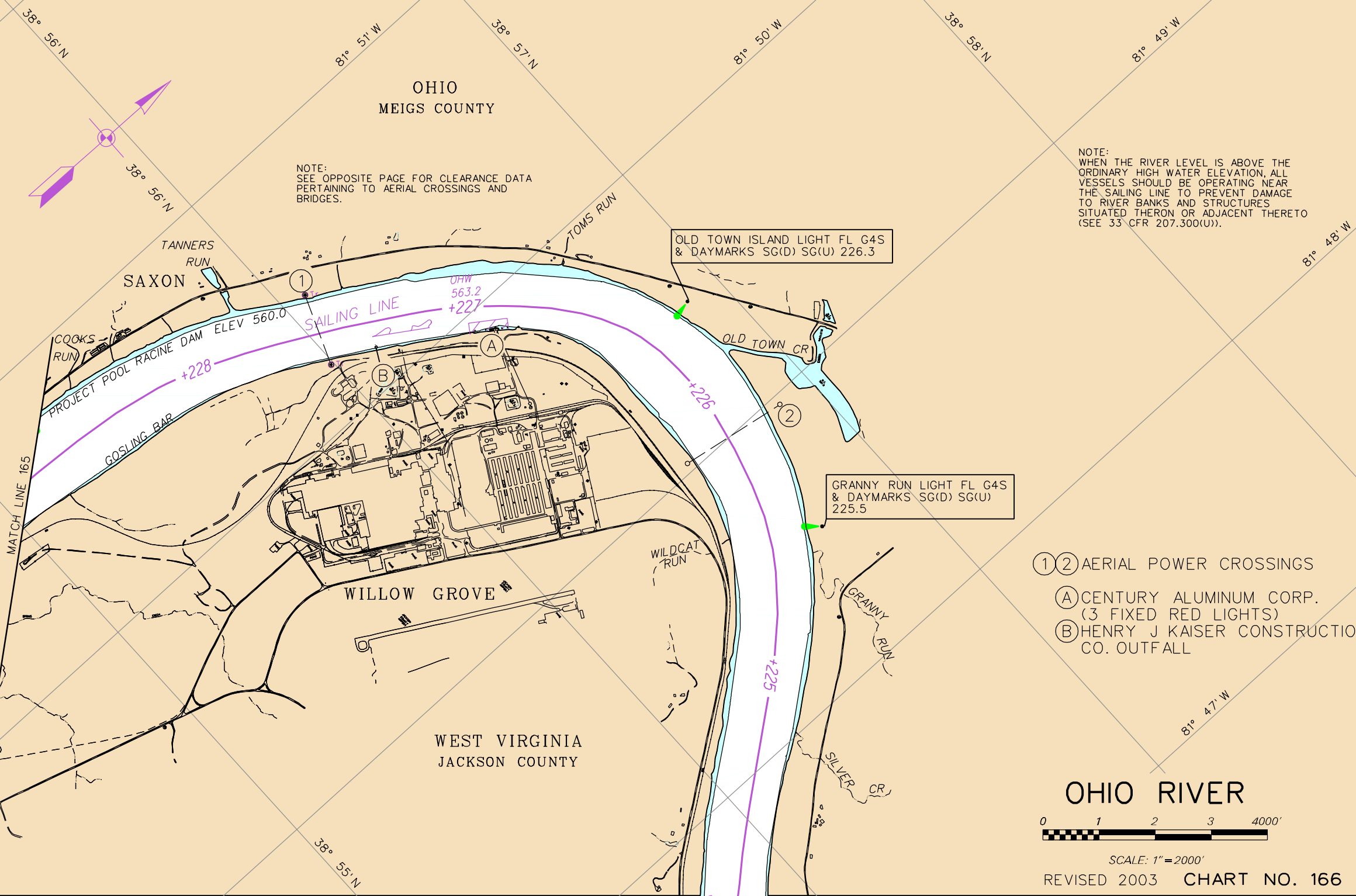
- ①② AERIAL POWER CROSSINGS  
A CENTURY ALUMINUM CORP.  
(3 FIXED RED LIGHTS)  
B HENRY J KAISER CONSTRUCTION  
CO. OUTFALL

OHIO RIVER



SCALE: 1" = 2000'

REVISED 2003 CHART NO. 166



①

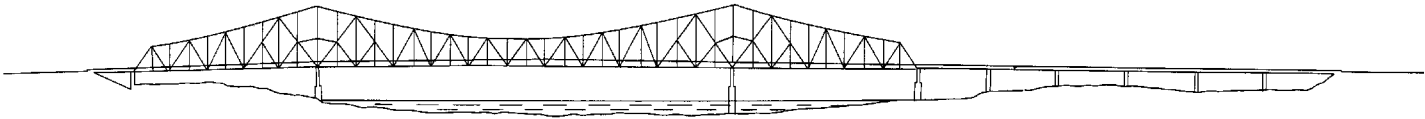
B & O RAILROAD BRIDGE

ELEVATION OF LOW STEEL 583.2'  
VERTICAL CLEARANCE AT POOL STAGE 23.2'  
HORIZONTAL CLEARANCE 203.75'

②

WASHINGTON STREET HIGHWAY BRIDGE

ELEVATION OF LOW STEEL 590.2'  
VERTICAL CLEARANCE AT POOL STAGE 30.2'  
HORIZONTAL CLEARANCE 342.0'



W.V.

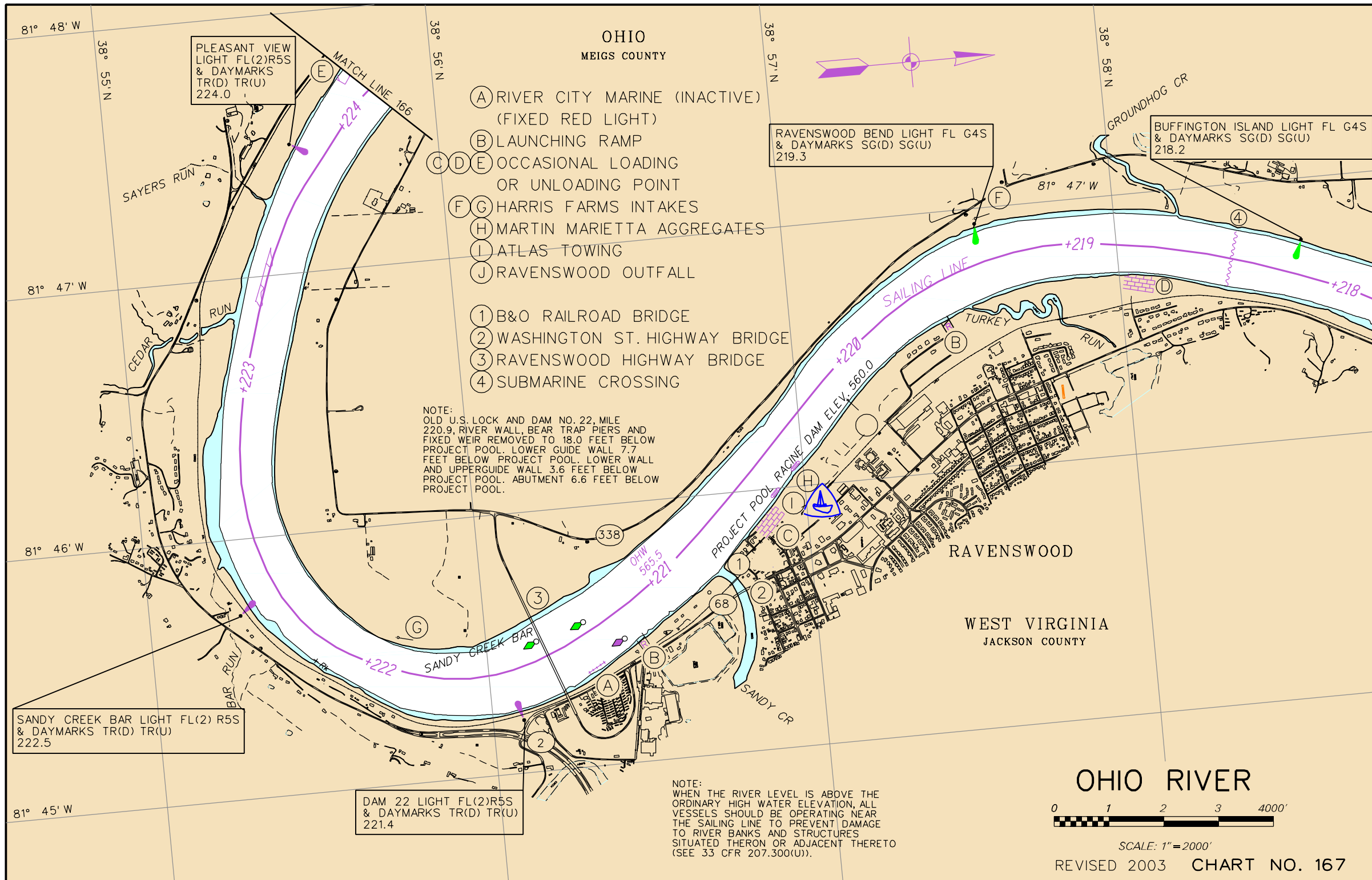
OHIO

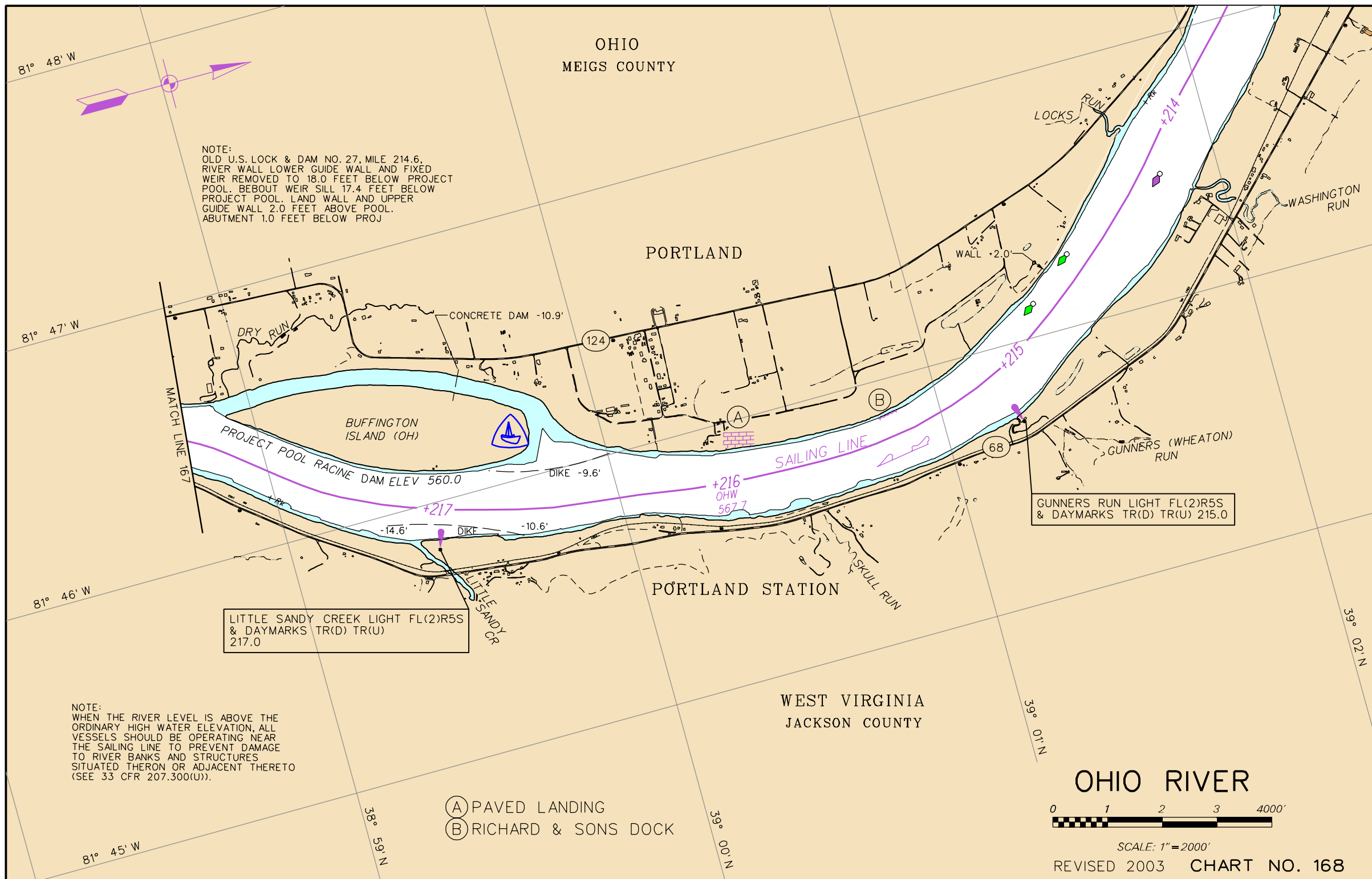
③

RAVENSWOOD HIGHWAY BRIDGE

ELEVATION OF LOW STEEL	CHANNEL SPAN 630.59'	AUXILIARY SPAN 622.75'
VERTICAL CLEARANCE AT POOL STAGE	70.59'	62.75'
VERTICAL CLEARANCE - 1913 H.W.	38.99'	38.99'
HORIZONTAL CLEARANCE	890.0'	401.4'







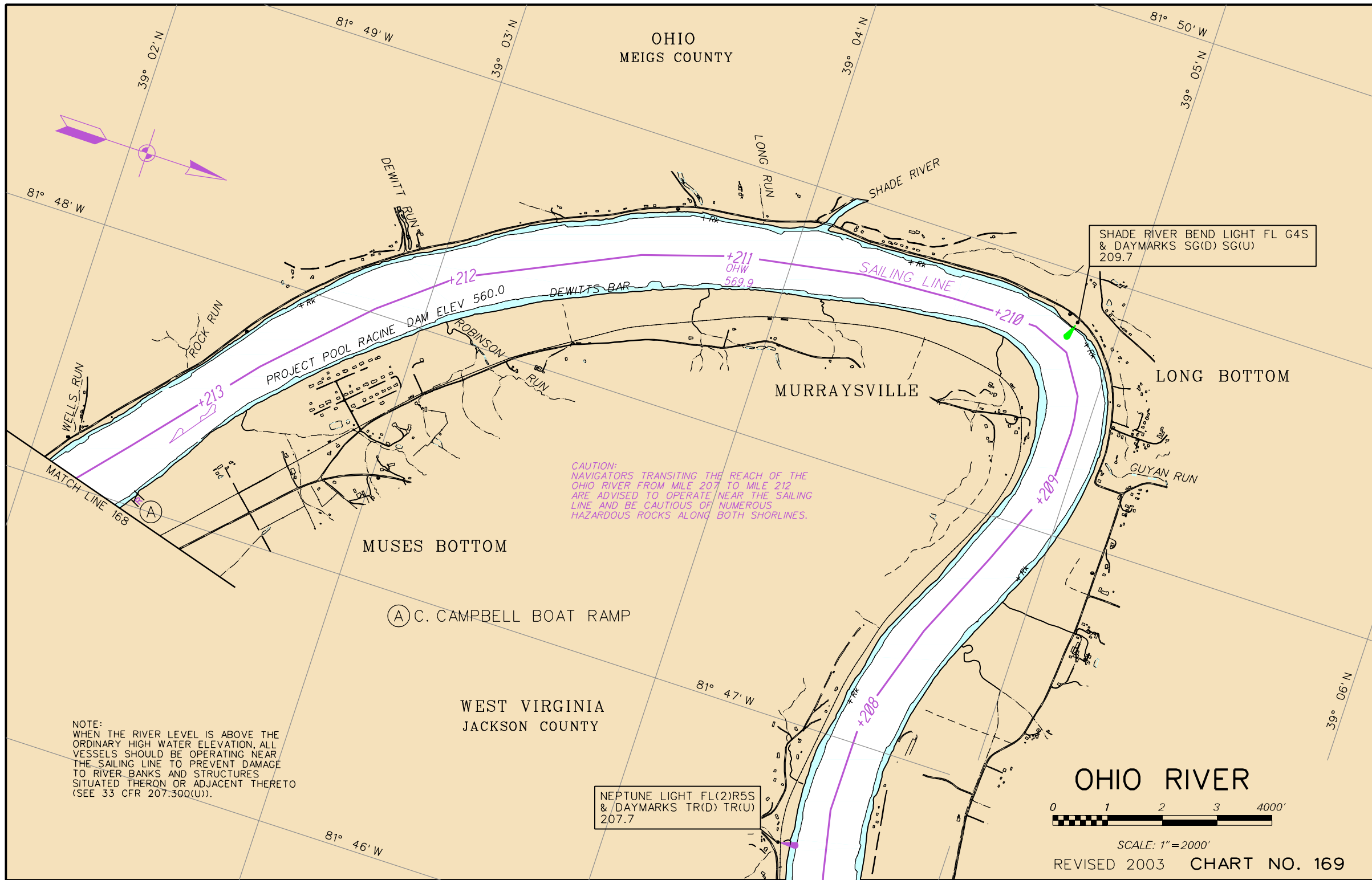
NOTE:  
OLD U.S. LOCK & DAM NO. 27, MILE 214.6,  
RIVER WALL LOWER GUIDE WALL AND FIXED  
WEIR REMOVED TO 18.0 FEET BELOW PROJECT  
POOL. BEBOUT WEIR SILL 17.4 FEET BELOW  
PROJECT POOL. LAND WALL AND UPPER  
GUIDE WALL 2.0 FEET ABOVE POOL.  
ABUTMENT 1.0 FEET BELOW PROJ

LITTLE SANDY CREEK LIGHT FL(2)R5S  
& DAYMARKS TR(D) TR(U)  
217.0

GUNNERS RUN LIGHT FL(2)R5S  
& DAYMARKS TR(D) TR(U) 215.0

NOTE:  
WHEN THE RIVER LEVEL IS ABOVE THE  
ORDINARY HIGH WATER ELEVATION, ALL  
VESSELS SHOULD BE OPERATING NEAR  
THE SAILING LINE TO PREVENT DAMAGE  
TO RIVER BANKS AND STRUCTURES  
SITUATED THERON OR ADJACENT THERETO  
(SEE 33 CFR 207.300(U)).

- (A) PAVED LANDING
- (B) RICHARD & SONS DOCK



OHIO  
MEIGS COUNTY

SHADE RIVER BEND LIGHT FL G4S  
& DAYMARKS SG(D) SG(U)  
209.7

CAUTION:  
NAVIGATORS TRANSITING THE REACH OF THE  
OHIO RIVER FROM MILE 207 TO MILE 212  
ARE ADVISED TO OPERATE NEAR THE SAILING  
LINE AND BE CAUTIOUS OF NUMEROUS  
HAZARDOUS ROCKS ALONG BOTH SHORLINES.

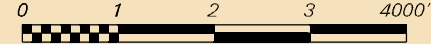
MUSES BOTTOM

Ⓐ C. CAMPBELL BOAT RAMP

WEST VIRGINIA  
JACKSON COUNTY

NEPTUNE LIGHT FL(2)R5S  
& DAYMARKS TR(D) TR(U)  
207.7

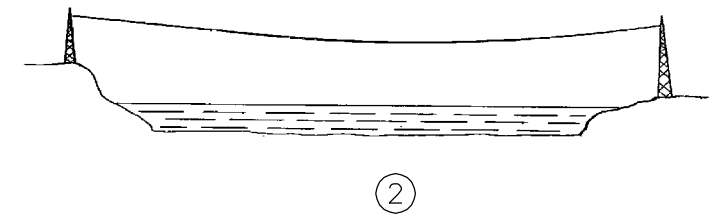
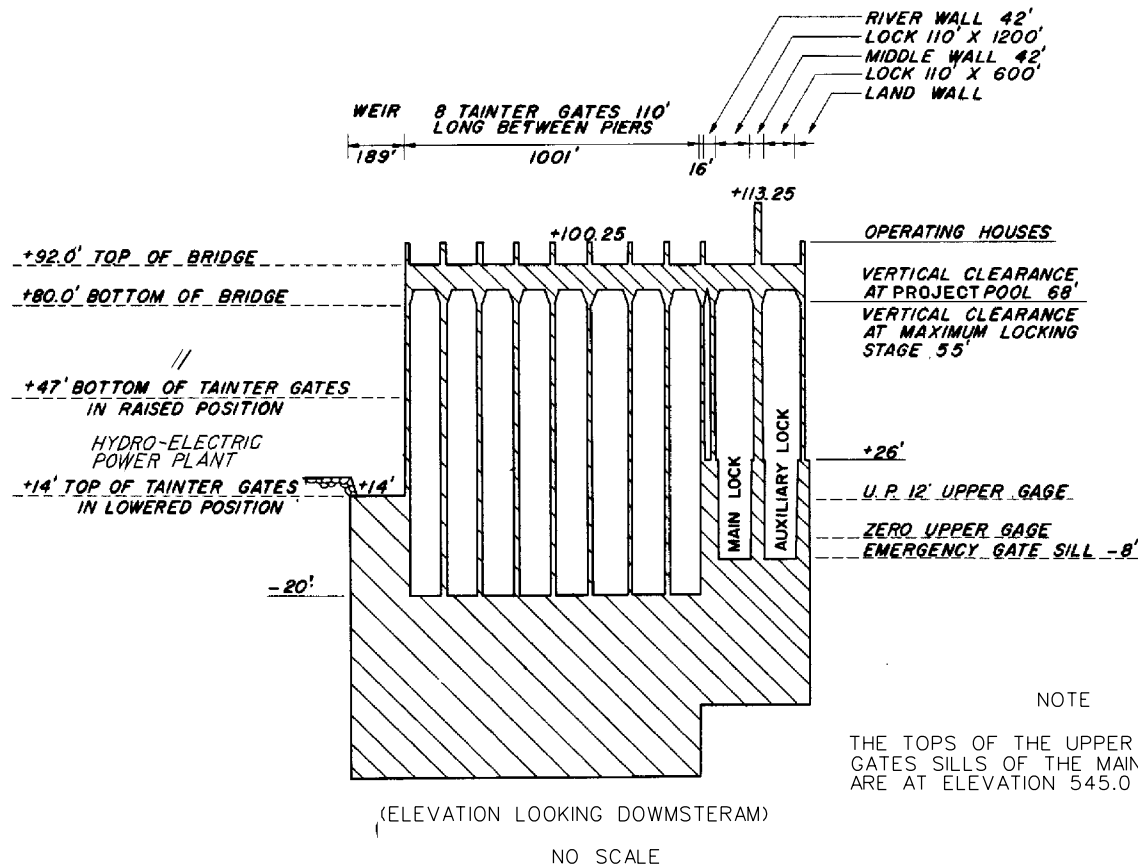
OHIO RIVER



SCALE: 1"=2000'

REVISED 2003 CHART NO. 169

NOTE:  
WHEN THE RIVER LEVEL IS ABOVE THE  
ORDINARY HIGH WATER ELEVATION, ALL  
VESSELS SHOULD BE OPERATING NEAR  
THE SAILING LINE TO PREVENT DAMAGE  
TO RIVER BANKS AND STRUCTURES  
SITUATED THEREON OR ADJACENT THERETO  
(SEE 33 CFR 207.300(U)).



AERIAL POWER CROSSING

ELEVATION LOW POINT OF SAG 665.0'

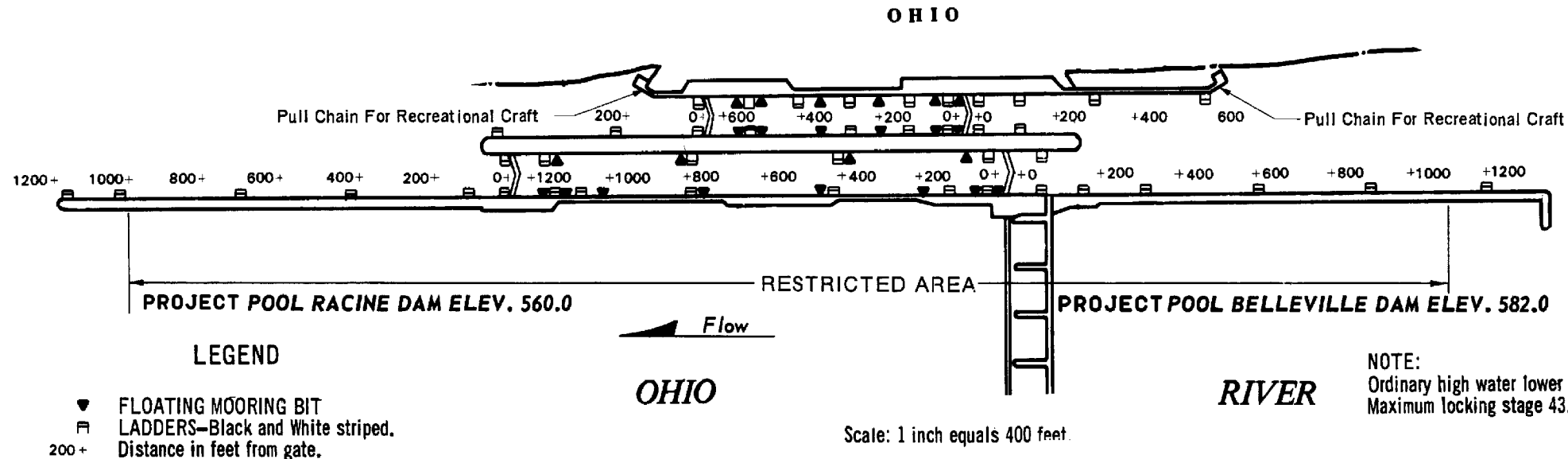
VERTICAL CLEARANCE AT POOLSTAGE 83.0'

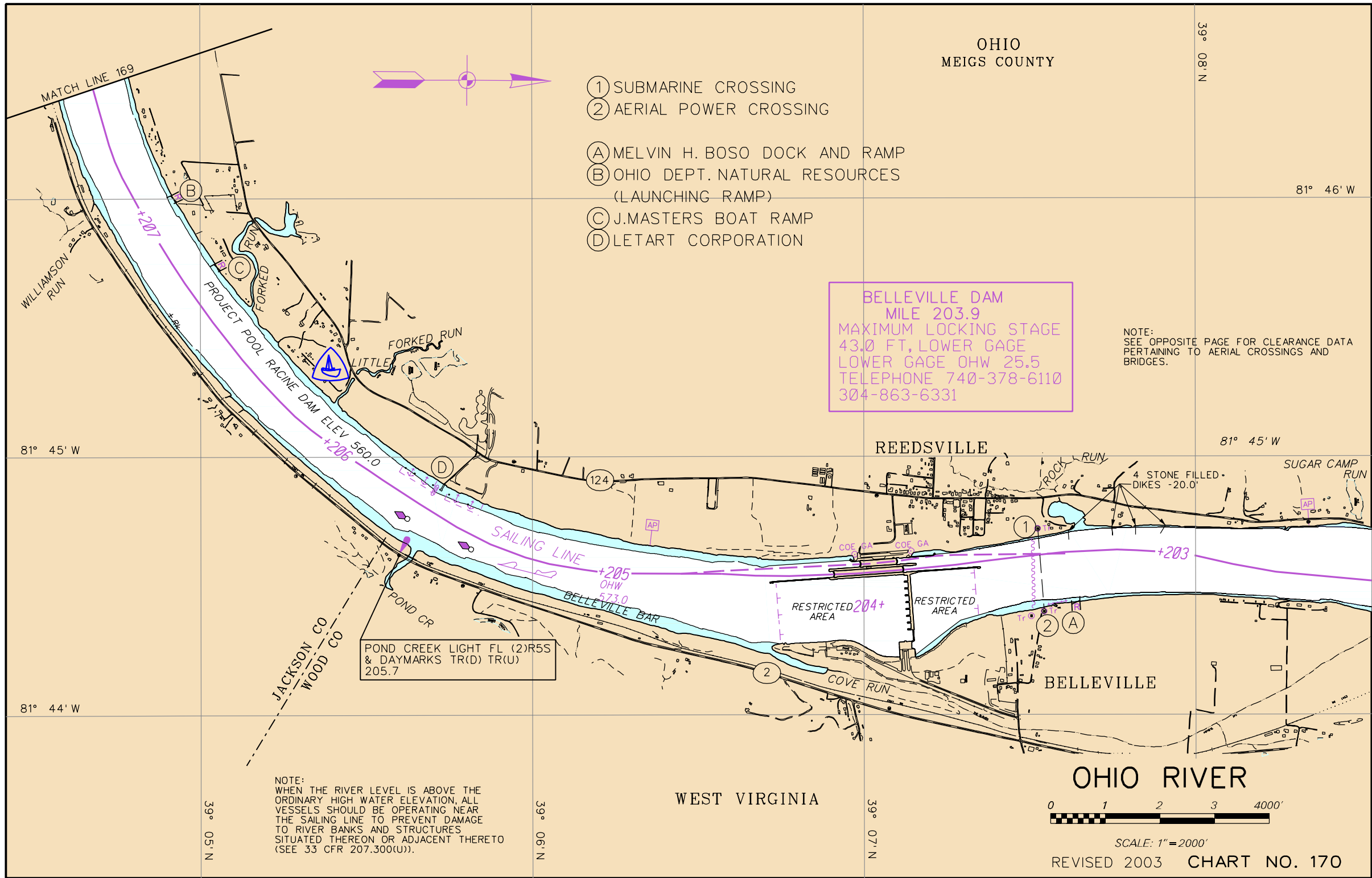
VERTICAL CLEARANCE - 1913 H.W. 54.5'

UPPER GAGE	
ZERO ELEV.	570.0'
P.P. READS	12.0'
LOWER GAGE	
ZERO ELEV.	548.0'
P.P. READS	12.0'

NOTE

THE TOPS OF THE UPPER AND LOWER MITER GATES SILLS OF THE MAIN AND AUXILIARY LOCKS ARE AT ELEVATION 545.0 FEET, M.S.L.





Mile	Location	Name	Commodities	Shelter	Facilities	Rail	Remarks
242.9L	Grahams Station, WV	American Electric Power Service, Inc. (Mountaineer Plant) (304) 882-4116	Oil	None	None	B&O RR	Two steel sheet pile cells.
241.6L	Grahams Station, WV	American Electric Coal Power Service, Inc. (Phillip Sporn Plant)  Phone Number Not Available	Coal	None	Gauntry Crane	B&O RR	Row of steel sheet pile mooring cells, 4375' long and one ice breaker cell; coal transferred from barge to hopper by crane.
241.1L	Grahams Station, WV	Marietta Industries  (740) 525-0555	Miscellaneous	None	Derrickboat	B&O RR	Two wood pile clusters & steel dock.
236.3R	Letart Falls, OH	Jay Mar Inc. Phone Number Not Available					
235.8L	Letart, WV	Martin Marietta Aggregates 1-800-762-8209	Sand & gravel	None	None	None	
235.4L	Letart, WV	Letart Corp. (740) 675-7511	Sand & gravel	None	Crane	None	Embedded barge.



Mile	Location	Name	Commodities	Shelter	Facilities	Rail	Remarks
233.8R	2.0 miles below Apple Grove, OH	Shelly Materials (740) 247-2311	Sand & gravel	None	Belt conveyor from stockpile to barge	None	Seven steel sheet pile cells and ten wood pile clusters.
232.2R	0.7 mile below Apple Grove, OH	Martin Marietta Aggregates 1-800-762-8209	Sand, gravel, & limestone	None		None	Wharf and six steel sheet pile cells.
231.5L	<u>LITTLE MILL CREEK</u>	(See Sheet 23)					
231.3L	<u>MILL CREEK</u>	(See Sheet 23)					
230.1R	1.5 miles above Apple Grove, OH	Shelly Materials		None		None	Wood mooring piles. 4 steel pile cells. Fleeting Area.
229.6L	Millwood, WV	Valley Inc. (304) 273-5555	Sand & gravel	None	Conveyor	None	
227.0L	Willow Grove, WV	Century Aluminum Corp. (304) 273-6000	Miscellaneous	None	None	None	Concrete dock and steel cells.
220.6L	Ravenswood, WV	Atlas Towing Phone Number Not Available					



Mile	Location	Name	Commodities	Shelter	Facilities	Rail	Remarks
220.5L	Ravenswood, WV	Martin Marietta Aggregates 1-800-762-8209	Sand, gravel, & limestone				
200.4R	1.0 mile below Hocking River	Dravo Corp., Contracting Div.(Inactive)	Rock	None	None	None	Four steel sheet pile cells. (Inactive)
193.1L	0.8 miles above Little Sand Creek (WV)	WESTVACO - Ohio Dock Phone Number Not Available					
191.14L	Washington, WV	G.E. Plastics (304) 863-7784	Chemicals	None	None	None	Two steel sheet pile cells & three pile clusters & operating platform. Pipeline from barge to plant. Unloading performed with pump delivering barge.
189.6R	Belpre, OH	Price Inland Terminals (740) 423-9803	Coal	None		None	Two barges sparred to bank. 3 Deadmen.